

REMARKS

In reply to the Office Action dated October 11, 2006, Applicants have amended claims 1 and 11-13 to clarify what is being claimed. Applicants have also added new claims 18-38 to add additional features without adding any new matter to the originally filed disclosure. As a result of this Amendment, claims 1-38 are currently pending.

In the Office Action, the Examiner rejected claims 1-8 and 11-17 under the utility requirement of 35 U.S.C. § 101. Specifically, on page 2 of the Office Action, the Examiner alleged that (1) "[t]here is nothing in claims 1-8 to limit them to non-software applications," and (2) claim 11 is "drawn to a program." On page 3 of the Office Action, the Examiner rejected claim 12 for allegedly failing to produce "a tangible result." Finally, as discussed in the paragraph bridging pages 2 and 3 of the Office Action, the Examiner alleged that although claims 13-17 involve "determining the threshold of a discriminate function," this result allegedly "is not a tangible result as it is not limited to be output from the media or made available to a user in any way that provides it with utility."

Applicants respectfully disagree. To satisfy the utility requirement of 35 U.S.C. § 101, the claims must call for a practical application (i.e., "a useful, concrete and tangible result") of a mathematical algorithm. See M.P.E.P. § 2107. For instance, in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998), the Federal Circuit held that transforming data representing discrete dollar amounts into "a final share price" constitutes a practical application of a mathematical algorithm. And in *Arrhythmia Research Technology, Inc. v. Corazonix*

Corp., 958 F.2d 1053, 1059 (Fed. Cir. 1992), the Federal Circuit held that transforming electrocardiograph data representing a patient's heartbeat into a "smooth waveform" constitutes a practical application of a mathematical algorithm.

As in *State Street* and *Arrhythmia*, each of the claims in this application calls for a similar practical application. For instance, independent claim 1 is drawn to a "pass/fail judgment device" that includes a "pass/fail judging unit for . . . providing a pass/fail judgment." Similarly, independent claim 11 is drawn to a "pass/fail judgment program," which "causes a computer to carry out a method" that includes the steps of "comparing" and "providing a pass/fail judgment." And independent claim 12 calls for another "pass/fail judgment method" that includes "a pass/fail judging step" in which "a pass/fail judgment . . . is thereby provided." Finally, independent claim 13 calls for a "multivariate statistics analyzer," which "executes a multivariate analysis program" that, among other things, acquires data "to provide a pass/fail judgment." Like the "final share price" and the "smooth waveform" in *State Street Bank* and *Arrhythmia*, the "pass/fail judgment" called for by claims 1-8 and 11-17 constitutes a practical application of a mathematical algorithm. Accordingly, one having ordinary skill in the art at the time of the invention would immediately appreciate the "specific" and "well-established" utility of the claimed invention, as addressed in M.P.E.P. § 2107.01 at 2100-32 (Rev. 3, Aug. 2005). As a result, the claims satisfy the utility requirement of 35 U.S.C. § 101.

On page 4 of the Office Action, the Examiner rejected claims 1-17 under 35 U.S.C. § 112, second paragraph, based on alleged indefiniteness grounds. In response, Applicants have amended claims 1 and 11-13 to obviate the Examiner's

concerns. For instance, Applicants have amended claim 1 to make it clear that (1) "a rate of flowout in the fail category" represents "a number of pass/fail judgment objects contained in the fail category that are judged as passed," and (2) "a rate of overcontrol in the pass category" represents "a number of pass/fail judgment objects contained in the pass category that are judged as failed." Similarly, Applicants have amended claim 13 to make it clear that (1) "a rate of flowout in the fail category" represents "a number of pass/fail judgment objects that should be classified in the fail category, but are actually judged as being classified in the pass category;" and (2) "a rate of overcontrol in the pass category" represents "a number of pass/fail judgment objects that should be classified in the pass category, but are actually judged as being classified in the fail category." Support for these amendments can be found throughout the original disclosure. For example, the original disclosure explains that

the probability that pass/fail judgment objects contained in fail category are judged as passed can be controlled by the threshold. At this time, the threshold is determined based on the mean of fail category and the standard deviation. Thus, ***the probability that pass/fail judgment objects contained in fail category (objects expected to be rejected) are judged as passed and defectives are let out is controlled.*** The above "rate of flowout" can be controlled as intended, and "rate of flowout" can be known beforehand as credible information. Naturally, the same control can be exercised for pass category.

Original Specification at p. 16, ll. 4-14 (emphasis added). It bears emphasizing that the examples found in the specification serve only to illustrate alternative embodiments of the invention. These disclosed examples do not limit the literal or equivalent scope of the claimed invention. Accordingly, each of the claims reasonably apprises those

skilled in the art as to the scope of the claims, as required by 35 U.S.C. § 112, second paragraph.

As discussed on pages 5-7 of the Office Action, the Examiner rejected claims 1-17 under 35 U.S.C. § 102(e) as being anticipated by Keenan et al. (U.S. Patent No. 6,584,413). Keenan et al., however, fails to render the claimed invention unpatentable. To establish anticipation under 35 U.S.C. § 102(e), the Examiner must show that each and every feature recited in the claims is either expressly disclosed or “necessarily present” within the four corners of the Keenan et al. patent. See M.P.E.P. § 2131 (7th ed. 1998); *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999); *Cont’l. Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1269 (Fed. Cir. 1991). And to support a conclusion of anticipation, the Examiner must specifically identify “substantial evidence” setting forth why and how the single prior art reference anticipates each and every feature recited in the claims. See *In re Mullin*, 481 F.2d 1333, 1336-37 (C.C.P.A. 1973) (an Examiner’s bare assertion that claims were obviously anticipated by a reference did not inform the applicant as to why the claims lacked novelty); *Dickinson v. Zurko*, 527 U.S. 150 (1999) (holding that the U.S. Patent Office’s finding of fact must be reviewed by the substantial evidence standard).

Viewed against this backdrop, the Keenan et al. patent fails to render the claimed invention unpatentable, and the Examiner has failed to identify any evidence to the contrary. As discussed in the Amendment dated July 10, 2006, the Keenan et al. patent fails to disclose or suggest the use of either a “rate of flowout in the fail category,” or a “rate of overcontrol in the pass category” to determine a threshold for providing a

pass/fail judgment, as recited more particularly in independent claims 1 and 11-13. Nor does the Keenan et al. patent disclose or suggest the use of either a “rate of flowout” in the “fail” or “defective” category or a “rate of overcontrol” in the “pass” or “non-defective” category to calculate a discriminate function for determining whether one or more objects should be classified in a certain category, as recited in greater detail in independent claims 18, 29, 37, and 38. In contrast, the Keenan et al. patent discloses an algorithm that identifies the chemical properties of a sample that uses a “sensitivity constant,” such as “twenty-five,” to (1) eliminate background noise from measured spectral data and (2) determine a threshold to automatically select a “number of chemically relevant species.” Keenan et al. at col. 23, l. 59, to col. 24, l. 30. The use of a “sensitivity constant” in the Keenan et al. patent is not the same as and does not anticipate, the use of either a “rate of flowout” in the “fail” or “defective” category or a “rate of overcontrol” in the “pass” or “non-defective” category, as recited in the independent claims. These features of the independent claims are neither expressly disclosed nor “necessarily present” in the Keenan et al. patent, as required by 35 U.S.C. § 102(e). Accordingly, the Keenan et al. patent cannot anticipate independent claims 1, 11-13, 18, 29, 37, and 38.

For at least these reasons, the Keenan et al. patent fails to disclose or render obvious each and every element recited in the independent claims. In addition, claims 2-10, 14-17, 19-28, and 30-36, which all depend upon one of the independent claims, respectively, recite additional features that are neither disclosed nor suggested by each of the applied references, taken either alone or in combination. Since each of the

dependent claims not only includes the same limitations as the independent claims, but also recites these additional limitations, they are allowable for at least the same reasons discussed above with respect to the independent claims.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of all the pending claims 1-38. Should it be necessary to resolve any additional concerns and expedite the issuance of a Notice of Allowance, the Examiner is invited to contact Applicants' representative at (202) 408-6052.

Please grant any extension of time to the extent required to enter this response and charge any fees required to our Deposit Account No. 06-0916.

Respectfully submitted,

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